

ABSTRACT

[0074] The present invention provides systems and methods that facilitate transmission and/or reception of radio frequency (RF) signals within a mobile communications device. The systems and methods include a first antenna component such as an active stub that comprises one or more active elements and a second antenna component such as a parasitic whip that is electromagnetically coupled to the first antenna component. The systems and methods provide a relatively compact antenna structure for mobile devices with limited physical volume, or footprint. The antenna structure does not require a mechanical interface (*e.g.*, a galvanic connection) between the active stub and parasitic whip to provide a conductive connection to the whip when it is in an extended position. The novel systems and methods yield reduced antenna wear, higher antenna gain and better radiation efficiency than conventional systems and do not require a matching circuit to achieve multi-band resonances.